OBSERVATIONS ON CAVALRY DUTIES

Some Hints for Western Canadian Cavalry Men

By

MAJOR W. A. GRIESBACH

19th Alberta Dragoons

To the Non-commissioned Officers, "A" Squadron Nineteenth Alberta Dragoons.

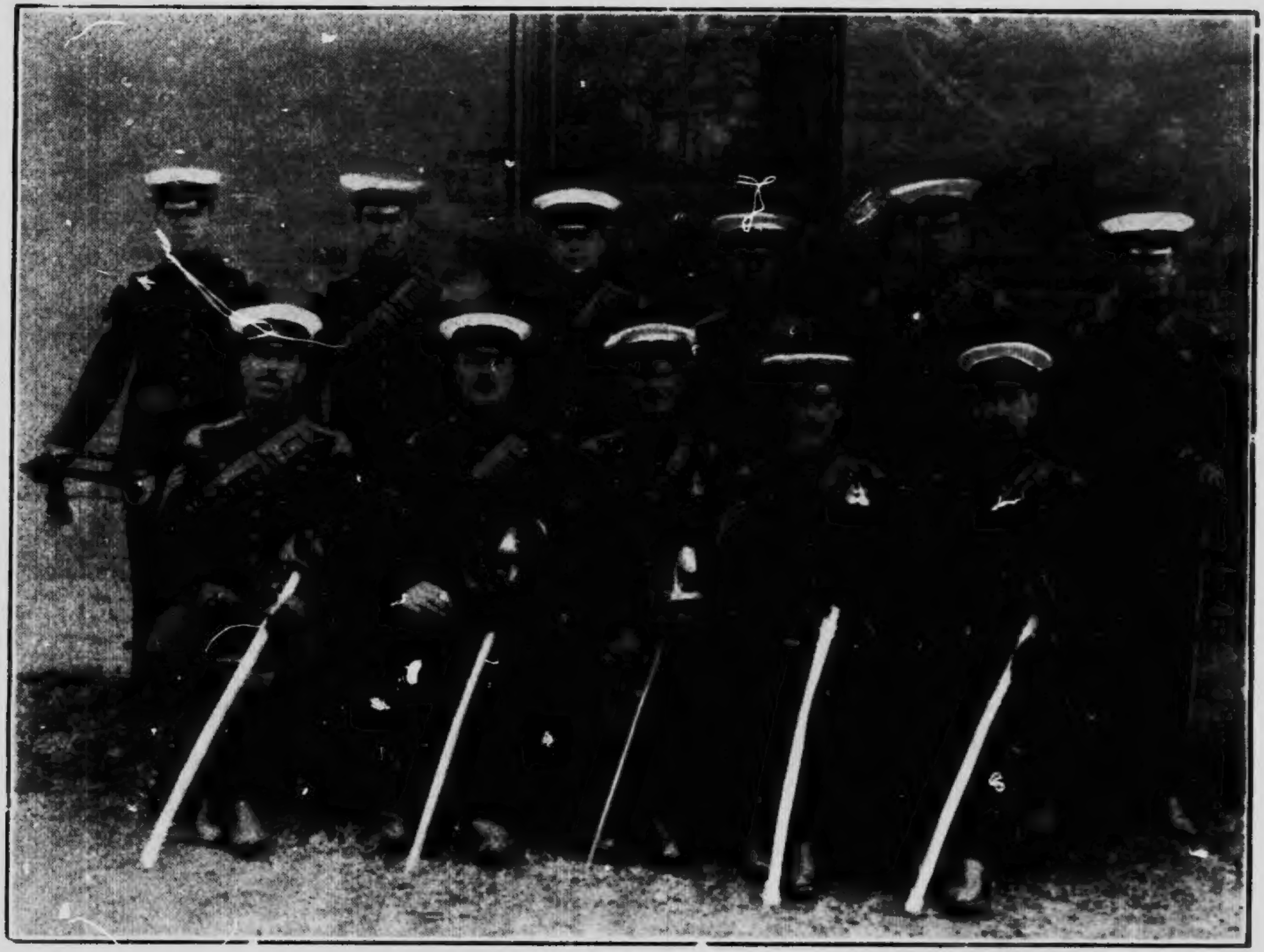
During the past winter I delivered a series of lectures dealing with those tasks which fall to a Squadron such as ours, and detachments of the Squadron. The Officers of the Squadron suggested that I might summarise these lectures and publish them in a little book, which could be carried and read by all ranks.

As you read what follows, each one of you will recognize, perhaps with mixed feelings, points upon which I have laid particular stress. The man who does not make mistakes, never makes anything, it is said, and I am sure that we have all quite determined to eliminate from the future the mistakes of the past.

Each year has seen a vast improvement in the Squadron, and I should like to feel that in our field work, we are quite up to the standard of our other activities.

W. A. GRIESBACH,
Major Comamnding "A" Squadron,
Nineteenth Alberta Dragoons.

Edmonton, May, 1914.



SERGEANTS OF "A" SQUADRON, 19th ALBERTA DRAGOONS

INTRODUCTION

"The most promiscuous murderer in the world is the ignorant military officer. He slaughters his men by bullets, by disease, by neglect; he starves them, he makes cowards of them, and deserters and criminals. The dead are hetacombs of his ignorance, the survivors melancholy spectres of his incompetence."
—Homer Lea.

Napoleon said, "War is not a conjectural art, it is a business."

For the transaction of our country's business in a great national crisis, we need that knowledge which is power.

We do not trust our lives on a railway train to the ignorant and unskilled; on the contrary, we demand the highest trained intelligence. We would not allow a butcher to amputate our limbs, or a doctor to plead our law-suits. No man may take charge of a steamship until he is in possession of his certificates, which he cannot obtain without a lengthy experience and apprenticeship. Yet it is the policy of the people of Canada to entrust their honor, their property, and the lives of their young men, and the very existence of the nation itself, to an organization which is given but twelve days in the year to perfect itself in the business of war. Many otherwise intelligent Canadians actually believe that as a people we are so bright, so intelligent, and so adaptable, that twelve days' training is ample time in which to turn the average Canadian into a first-class fighting man. The militia of Canada entertains no such delusion The Officers and men who have received every bit of training that it is possible to get, realize to the full what a terrible tragedy this idea may some day lead us to.

Before any other thing the greatest military asset a country can have is an intelligent understanding, and logical public opinion. As citizens, let us hope for the coming of such a public opinion; as soldiers, let us make the best of the situation as it is. Surely there can be no higher or better ambition than to try to fit oneself in mind and body for the great duty and responsibility of defending one's country. It is no easy task, and it is beyond the reach of the bar-room loafer, the cigarette fiend, and the pot-bellied curb-stone lounger. It calls for the highest qualities of mind and body, and in particular for energy, pluck, generosity, chivalry, and good health. That a military training is the best possible preparation for the battle of life, there can be no manner of doubt.

Let it never be forgotten that the training is a training for war. The prime factor about the making of war is to know what to do, and how to do it, and to do it first. A Confederate General defined strategy as "getting there fustest, with the mostest men," and a large body of men cannot be got anywhere without organization, administration, discipline, and leadership. The individual must, therefore, yield himself to a system of discipline which requires him to give instant and complete obedience to those set over him; and this system should, and does, prevail from the lowest to the very highest in the army. For every soldier is the servant of the State, and the army is the instrument by which the State enforces the will of the people. Organization and discipline are the highest expressions of civilization, otherwise barbarians would over-run the world. To know what to do in war can only be learnt by training for war in peace, and likewise how to do it.

In the following pages I have endeavored to set out some of the principles which govern in the performance of those duties which might be laid upon this Squadron, and detachments of the Squadron in charge of non-commissioned officers. It is not pretended that the methods indicated are the only methods, or, indeed, the best methods, but there are certain principles involved which must be observed, and it is to these principles that your attention is particularly directed.

Maintenance of touch and maintenance of communication. These are our besetting sins. The tendency to wander off and lose touch, or to sit on a hill doing nothing and serving no useful purpose. These are the things which cause the Squadron commander to use "language." In the vernacular of a corroding commercialism, "Be a live wire; do not be a dead one." Get your orders and understand them. Carry them out; but if in doubt or without orders, there is an old rule which still holds good, "Go to the gun fire;" in other words, "Get into the game." Our training is for war. The soldier is a fighting man. Get into the fight. Your rifles or your appearance at the psychological moment may give us the victory.

ADVANCE GUARD

"I have often heard it said that a knowledge of strategy is only necessary to officers called upon to exercise higher commands in war. I combat that idea."

—Field-Marshal Sir John French.

Every body of troops advancing through a country in which it is possible than an enemy may be encountered will be preceded by an advance guard:

For this duty—

1. Get your instructions, and make sure that you understand them.
2. The route to be followed.
3. What is known of the enemy, his strength, and intentions, in that locality.
4. Information as to our own people; what they are doing, their strength and intentions in this locality.
5. Where reports are to be sent.
6. The hour of marching, and the starting point.

The first thing you will think of is—"How far must I get ahead of the main body?" The answer is—"A sufficient distance," that is to say; depending upon the nature of the country; a distance that will make it reasonably certain that you will strike the enemy and engage him, or drive him off, before he can harm the main body, or at least to give the main body time to deploy, or otherwise meet the situation. Thus, in bush country, three or four hundred yards may do; on the flat prairie, two or three miles; in rolling, or hilly country, from half a mile to a mile and a half.

Protect the main body, and use your head; that is your job.

Having got out your proper distance, divide your party in main guard and van guard, if you have enough men. If not, and you probably will not have enough men, drop connecting files back to your main body. The number of men needed for this work will depend on the ground. On level prairie, and always in sight of the main body, a few men, say two, will do. In bush country you will need a man at every turning of the road, and in rolling country a man on every eminence.

A point, or patrol, of a few men should precede your main guard a sufficient distance ahead to warn you of the presence of the enemy. There should be connecting files between your main guard and your point, or advance patrol.

You must not look only to your front, but keep your eye on your flanks for places in which the enemy may be concealed, and from which he could seriously attack, or impede the advance of the main body, or observe the march of the main body. You will, therefore, as the circumstances require, send out patrols from your main guard to either flank, to examine such places, they to remain in observation there until the flanking patrols of the main body come up. They should then rejoin the main guard, unless there are orders to the contrary.

You should notice these dangerous spots well before you come to them, and send out your patrols diagonally, as it were, to your advance, so that these patrols will have plenty of time to reach these points, and especially to look them over before any possible enemy concealed there can do any damage to the main body.

If you do your work properly the main body may come on, knowing that for, say two miles, in their front, and a mile on either side of the road or line of march, watchful

eyes are scanning every bit of ground that may shelter an enemy.

You must report to your C.O. as often as possible. Remember that negative information is as valuable as positive information. The C.O. is just as much interested in knowing that there is no enemy in sight as that you are in touch with him; and remember that this is not your show, but the C.O.'s show.

As you go along you send a patrol here and another one there, a messenger forward and another back, and the first thing you know you are alone on the road. It is difficult with a small party to avoid this, but it is bad, and must be avoided. It can be prevented only by hard riding, clearly given orders, intelligently and promptly carried out; the use of semaphore signalling will help wonderfully, and alertness on the part of your men will make signalling easy and successful. The men will doze as they ride along or, at all events, will not constantly be on the lookout for the enemy and for signals from every side. In manoeuvres you must wake them up and keep them "on the bit." In war a few casualities will bring about the desired result.

YOU GET YOUR PACE FROM THE MAIN BODY. Do not forget this. Many do. When the main body halts, you halt. When they move, you move. Your connecting files are the people responsible for touch and distance. You must all look backward as well as forward. It is a common thing at manoeuvres to lose an advance guard. When this happens it is the fault of the advance guard commander, who has not maintained proper touch. You must instruct your connecting files particularly on this point. Assume the march to be on a winding road, over rolling country; the

man nearest the main body keeps it in view by keeping on high ground at the turns of the road. At the same time he endeavors to show himself to the second connecting file. The second connecting file keeps the first one in view, and shows himself to the third connecting file, and so on. All should look backward and forward and signal the halt at once by halting their own horses broadside on, and holding up the hat at arms length above the head.

The keeping of regular distances between connecting files is not so important as getting in positions where signals may be passed along. The signal for the "advance" is best given by moving the horse forward. If the first connecting file sees a level stretch of road in front of him, with the main body in sight behind him, he may gallop along to the first eminence or turn, and there remain for a while until the main body has made good that stretch of ground. The best rule to observe is this: The first file keeps the main body in sight; the second file keeps the first file in sight, and so on to the point, or advance patrol.

At the conclusion of the march the main body halts to bivouac or camp. Even although you know where this bivouac is going to be, you should move on with your advance guard as though you did not, covering and protecting the front until the main body halts, and then you should remain in your positions until you are finally relieved by the out-posts the main body will send out, or until you are ordered in.

Should you strike the enemy, report as fully as possible at once, and push him so as to develop his position and strength.

Seize any good position in the neighborhood. The main body may subsequently need it. On the other hand, the

march of the main body should not be held up by a few of the enemy's scouts. You must push on if you can.

As you march along the road, look about yourself and keep awake. Constantly ask yourself—"Is there anything else I can do?" "What should I do if I were fired on from that hill or from this wood?" By constantly asking yourself and answering these questions, you will be ready with your plan and your orders when the time comes.

Keep cool. Use your head. Your trained commonsense will tell you what to do.

Never forget that your task is to protect the main body and give your C.O. time to make his plan, and set about carrying it out.

REAR GUARD

"I look around on every side. I see one honest man in the community; he is the drill sergeant."

—Carlyle.

Rear guards are of two kinds, (a) rear guard to an advancing force, of which not a great deal need be said, (b) rear guard to a retreating force.

The duties of a rear guard to an advancing force are comparatively simple, and are largely of a police nature. The principles of touch and communication are the same as in advance guard work, and the object of the rear guard is the protection of the main body. The formation will vary with the ground and conditions, but generally will resemble an inverted advance guard.

The duties of a rear guard to a retreating force are very important, and the object sought to be obtained is the protection of the main body by delaying the enemy, causing him to deploy into fighting formation, thereby causing loss of time to him, while our main body continues its retreat, gathering itself together, and regaining its nerve and fighting spirit. This duty gives great scope to our arm, and much opportunity for valuable service to our force. This duty, if properly performed, may turn what would have been a rout into an orderly retreat, with, possibly, a subsequent victory.

The ordinary method followed is to take up a succession of defensive positions which are mutually supporting; that is to say, a ridge [illegible] the left of our line of retreat, with another ridge half a mile back on the right of our line of retreat. While a portion of the rear guard get away from the first ridge, the fire from the second ridge sweeps the enemy's approach and covers the retirement of our force

on the left The enemy should be kept constantly deployed, and always under our fire. Their progress must be slow.

The first point about this game is to hold on to our positions long enough, but not too long. To hold on too long may result in being cut off, but we should not leave our positions until the enemy has fully deployed. We then gallop back, say, two miles and take up another position.

The enemy continues the advance, deploys, and loses time thereby, or reforms in columns of route, and loses time by so doing. No sooner has he reformed in column than we open on him again, and again he deploys and loses time.

In the meantime our people are getting away.

Orders will be issued as to the extent to which bridges, railways, etc., are to be destroyed or damaged, as our retreat may only be temporary. This duty affords opportunity for daring expedients, strategy, and ambuscades. Vigorous counter attacks may be delivered, and the opportunity should not be lost should it present itself. The enemy may attempt a parallel pursuit, and seek to gain a position on the flank of our main body. In doing so he will present his flank to us. Our opportunity to harm him will be improved but, on the other hand, we shall be in danger of being cut off from our main body.

If our main body is in a bad way, we must not hesitate to risk our rear guard, and to sacrifice ourselves in an endeavor to protect our main body.

The rear guard should not enter defiles or narrow places on the road until the whole of the main body is safely through; and the enemy must be checked at all costs until this has been accomplished. Roads should be blocked

with anything that comes handy—upset wagons, use barbed wire, set fire to the prairie or woods, leave explosives in the enemy's advance, with time fuses burning. All these things affect the morale of the pursuers. Always have good lines of retreat from successive positions. This favorably affects the morale of our men. Fill all fords with barbed wire, concealed below the surface of the water, and fastened up stream. Never forget the value of supporting fire. As far as possible every section of the rear guard retiring. should retire under supporting fire from some other section of the rear guard. If you hold the enemy in check, he will move cautiously. If you give way too easily, he will ride boldly. All your retirements should be secretly carried out, so that the enemy will not know when you have vacated your position. It is a good idea sometimes to cease firing absolutely, and leave the enemy to think that you have vacated your position. He will then come out boldly in the open; and you should allow him to approach until he offers a good mark, then open rapid fire. Cease firing, and retire secretly. If you do this several times, the enemy will become very chary of advancing against your former positions, not knowing whether you are in occupation or not.

FLANK GUARD

"If any other come that hath better iron than you, he will be master of all this gold."

—Solon.

Protection of the flanks is secured either by flank guards or flanking patrols, and the use of either, or the absence of both, will depend upon the strength, intentions, and dispositions of the enemy, and the lay of the ground. On the flat prairie a flank guard or patrols may be dispensed with to a great extent. Under certain circumstances one flank may be more vulnerable than the other. The enemy may be expected on the one flank and not on the other, or one flank, may be protected by the march of other troops.

The object in view, and the principles governing flank guard work are the same as in advance guard work, viz., protection of the main body.

You should take your flank guard out a proper distance, and your main guard should march directly opposite the flank of your main body, and should be preceded by a small point, or patrol, which will constantly be coming upon and relieving patrols from the advance guard (see Chap. on Advance Guard).

You should hold all dangerous spots with your main guard until the main body is safely past, and then rapidly regain your proper position.

You should have a small patrol following you to protect your own rear and to observe your rear to the outer flank.

You should search with your patrols all dangerous spots on your outer flank, detail connecting files between your main guard and the main body, and between your advance and rear patrols.

Mounted rifle men should always be on the look-out for a hard and fast gallop from a concealed position to a good firing position. Assume the main body to be marching on level ground due South; a ridge runs parallel to their march at a distance of fifteen hundred yards. You are on this ridge, with your main guard. Still further out about 1,000 yards, there is another ridge, and behind this the enemy is concealed. You have not searched this spot, or just as your patrols approach it, the enemy emerges with the intention of galloping over the intervening ground to seize the ridge you are on, ride you down, and open fire on your main body, which is in column on the road. The enemy can do this distance in two minutes or less. You must constantly think of these possibilities, and have your plans and orders ready You at once apply the first principle—"Protection of the main body," and you might properly dismount your men and open a rapid fire upon the advancing enemy. By so doing you may break up his advance. At all events, you will take some of the "ginger" out of him, and your action will alarm your own main body, and give them a chance to deploy. You may drive the enemy off yourself, or your action may result in the death, wounding, or capture of your party. But you must not shrink from this, for it is the soldier's duty to sacrifice himself when by so doing he can give his side an advantage, or save it from disaster.

If, in manoeuvres, in the presence of the enemy, the main body should suddenly change its direction, and its new direction should be towards your flank, assume yourself to be the advance guard at once, without further orders, and act in that capacity, making the necessary dispositions of your party. The old advance guard will then become a flank guard, and the old rear guard will

then become the other flank guard, and the remaining flank guard will become a rear guard. All these different parties are filled with the same idea of protection to the main body, and they adapt themselves to the altered circumstances and change of direction as a matter of course, each guard commander knowing what the other will do, and what is expected of each of them by the C.O. The confidence which comes to all ranks from a perfect understanding of the principles involved is the greatest possible factor in the successful performance of these, and all other duties that the Squadron may be called upon to carry out.

OUT POSTS

"Neither is money the sinews of war, as is trivially said; where the sinews of men's arms is base and effeminate, people are failing."

—Bacon.

An outpost line is selected by higher authority, and is divided into sections, and a section is given to a unit. In a mixed force, the cavalry may do the work by day, and the infantry by night on an inner line. The underlying principle in outpost work is the same as in advance or rear guard work, viz., proteotion of the main body, but in this case, while it is at rest; to ensure that the main body may rest undisturbed, and, in the event of a serious attack, to hold the enemy in check until the main body takes up a position of defence. You will be directed to your position either definitely or approximately, and you should be fully instructed on all points (vide Chap. on Advance Guard). In the carrying out of this duty, the outstanding feature is secrecy. If the thief knows where the policeman is, he does his thieving where the policeman isn't. If the thief does not know where the policeman is, obviously he does not know where he isn't, and his task and his risk is the harder and the greater. From the position of your outpost you must be able to see without being seen. By no act or sound should you betray your location to the enemy, and in that connection do not forget that he probably has field glasses, and may be able to see you although you cannot see him.

Your approach to, and retirement from, your outpost position should be with secrecy. If your approach is over open ground, endeavor to mislead the enemy by a false direction while exposed, and get into your actual position

under cover. Each campaign produces its own system of outpost work. The climate, the nature of the country, and the characteristics of the enemy, are the determining factors. In Europe, with its made roads and stone fences, a watch on the roads would be probably sufficient, since the enemy could not well move otherwise than on the roads. In this country. the enemy could, and would, move across country, cutting the fences, if necessary. The line of observation posts would be nearest the enemy; back of that a supporting distance, about the centre of the observation line, would be the picket, and back of the picket, the reserve. One troop in the reserve, one troop in the picket, and two troops on the observation post line, divided into a series of posts, with four men at each post. The posts should be numbered from right to left. The circumstances of ground, enemy, etc., would determine the distance the outpost line would be from the main body, and the intervals between posts. The location of the posts, the picket and the reserve, should be known to all ranks. At all events the location of observation posts on your right and left should be known to you. If the observation post line was very long the picket might be divided, so as to more effectually cover the observation post line. The observation post should occupy high ground by day to get a good view, and low ground by night where sight and hearing better serves by night.

The enemy would probably keep to low ground, if moving by night, since most roads follow low ground. A visiting patrol should frequently be sent from the picket to visit the observation posts. Upon reaching your observation post, the men should dismount and conceal their horses. The horses should not be unsaddled or unbridled, although the girths might be loosened. One man should then

be told off as a sentry, and advance to a position of observation. He should be within speaking distance of the other men, and, by night, a distance that would enable him to call to the other men in a low-toned voice. This necessity for proximity of the sentry and remainder is essential at night, but not so necessary by day. The sentry should be alert and watchful to the highest degree. The other men may rest. At night the sentry should use his ears as well as his eyes, and if he can have his horse beside him, the horse will give warning of anything approaching long before the man can see or hear anything, particularly on a still night. The amount of ground committed to each outpost should be clearly designated. By day, should anything untoward be seen or heard, the sentry should call the N.C.O. or man in charge of the outpost. He will decide what should be done. At night there will not be time for this, and the sentry should act at once. Enemies, and not friends, are to be expected from the front, but you must give every man one chance. Assume that at night three men come in view of your post; do not be hasty. Allow then to come well within view at, say, fifty yards, and then challenge in a loud, clear, and sharp voice—"Halt! who goes there?" At the same time pump a cartridge into the chamber. If there is no answer, fire at once, and keep it up until they disappear. Further enquiries come later. If, in answer to your challenge, you hear a shout of—"Friends," your answer should be—"Stand, friends; advance one," and you allow one man to come forward on the muzzle of your rifle, and stop him at, say, eight feet. You do this to prevent yourself from being rushed by superior numbers, and the man who comes to you may be able to satisfactorily account for himself and his companions. If the three men halt, and one of their number does not advance, or if they act in a suspi-

cious manner, or if the three men advance together, fire at once. There are, of course, objections to too much firing on the outpost line, but, on the other hand, if the Squadron gets the reputation of being "Hair Trigger men" on the outpost line, that reputation will travel far, and will tend to give an alertness and watchfulness to our men that they would not have if encouraged to hesitate, enquire, report, etc. Needless to say, the morning light will disclose a number of dead and wounded cows and donkeys, but the enemy will steer clear of such an outpost line. The sentry should be relieved every two hours.

Inasmuch as you are to protect the main body and give it time to form for action, the outposts must put up a fight should the enemy appear, and the retirement on the line of resistance should be sullen and slow. Behind you are the picket and reserve. They will reinforce the observation post line, or the observation post line will fall back on the picket and reserve, as the necessities of the case require, and as you will be instructed beforehand; but there must be a fight on the outpost line, and it must be kept up until the main body is in position. Communication must be maintained everywhere by orderly, signals and visiting patrols. It is a good rule never to go anywhere or do anything without communicating to higher authority your position, what you are doing, and what you are seeing. You will be specially instructed as to flags of truce, treatment of inhabitants, prisoners, deserters, spies, etc.

SCOUTING

"All great nations learned their truth of word and strength of thought in war; they were nourished in war and wasted in peace, taught by war and deceived in peace, trained by war and betrayed by peace."

Ruskin.

Scouts are probably born, and not made. Only in actual warfare can it be definitely known whether an alleged scout is a real scout. The born scout is only half a scout unless he has a fairly comprehensive military training. Natural born scouts may be active, good horsemen, good shots, intelligent, of quick eyesight, and good hearing. He may have dash and daring, plus coolness, and presence of mind, and in primitive warfare would be a success, but in modern civilized warfare, such a man is of little, or no use unless his military training and experience is extensive and comprehensive; that is to say, he should be familiar with the characteristics of all arms of the Service, their strong and weak points, their limitations and necessities. He should have a clear conception of military organization, system, and discipline.

Nine Indians out of ten would be failures as scouts, and (at the risk of running counter to a popular theory) Western Canadians, without military training, would be no better. If you wanted information about a coal mine proposition, you would send a mining engineer to investigate and report, because a mining engineer knows a coal mining situation when he sees it, and he brings back a report which deals with all the essentials of the situation. He brings the information which you want. You can confidently rely upon his information. If you want definite information about a military situation, you must send a man who knows a military situation when he sees it. A scout gets his information about the enemy in spite

of the enemy. A great deal of his information is arrived at by deduction. Certain facts come to his notice, and he draws on his military information, and arrives at certain conclusions. He gets his facts by observing the enemy, by information obtained from inhabitants, prisoners, deserters, newspapers, letters, etc., which he finds or takes from the enemy, and by traces left by the enemy, such as fireplaces, the area of ground occupied by the enemy in abandoned camps and bivouacs, articles of equipment found, buttons, dead horses or ammunition lying about. A famous order of Gen. R. E. Lee's, giving his movements and dispositions for the next week, was found on an abandoned camp ground, wrapped around three cigars. The information contained in this order made it possible for the Federal Commanders to meet successfully Lee's combinations in that area. If a dust cloud is thick and low, it indicates infantry, if high and thin, cavalry, and if the cloud is broken, it indicates artillery or wagons. Before a scout goes out, he should receive (1) a clear statement as to his task, (2) the probable movements and intentions of his own and neighboring forces, (3) all information about the enemy obtainable, (4) specific instructions as to the seizure of papers, documents, etc., (5) instructions as to the nature and frequency of reports, where, and how, to be sent.

The scout should see without being seen. He works secretly. He only fights when he has to, or to get information. Scouts should work in couples, though many good scouts have preferred to work alone. The darkness should be used to gain ground towards the enemy's lines, and the daylight for observation. Not a great deal of useful information can be got at night. If the inhabitants are friendly, much useful information can be got from them. Their general information is usually reliable; their speci-

fic information, particularly as to numbers, is poor. You must cross-examine them on this point. Remember that civilian observers will estimate the strength of a secret society parade all the way from 200 to a thousand, when the real strength does not exceed one hundred and fifty, since the tendency of the untrained observer is to exaggerate numbers. Cross-examine and corroborate in securing information from inhabitants, whether friendly or hostile. In reporting your information to your C.O., give the source of it, and the amount of credibility which should be given to it.

Keep off the sky-line. When you get past your own outposts, act as though you believed yourself liable to be observed. Keep concealed. Do not forget that the enemy may have powerful field-glasses. In crossing open spots, you may crawl, and lead your horse, or lay on his side in the saddle and let him feed to personate a grazing horse. In approaching a hill to look over the top, leave your horse on the hither side, and crawl to the top. Do not stand up to see. Remain motionless as much as possible. If you think you are observed, remain motionless. At anything over a thousand yards only moving objects are spotted. A couple of tree branches held before the face is an effectual disguise of the shape of your head and shoulders. If you fear that you are observed, you may deceive the enemy by riding out boldly and going through the motions of observing towards your own people; the enemy will think that you are one of their people. In war everything is doubtful, and nothing is certain. Courage and nerve will often pull the scout through. To carry out the specific instructions of the C.O. is the first, and almost the only, duty of the scout. There should be no digression or falling by the wayside. Get the required information, and get it back to the C.O.

MAPS AND MAP READING

"War develops great civil virtues, and brings into action a degree and kind of physical energy which seldom fails to awaken a new intellectual life in a people that achieves great moral and political results through great heroism and endurance and perseverance. Domestic corruption has destroyed more nations than foreign invasion, and a people is rarely conquered till it has deserved subjugation."

—*G. P. Marsh (American Geographer).*

A map is a representation on paper of an area of ground. Necessarily a map is much smaller than the ground it represents. How much smaller we cannot tell until we find the scale. The scale may be shown on the side or the bottom of the map, on a line which may show that an inch, or so many inches, on the map represents a mile, or so many miles, on the ground. On military maps this scale may be shown by what is known as the "R.F.", or "Representative Fraction," as, for instance $\frac{1}{63360}$ This means that one inch on the map is equal to 63360 inches on the ground, or, divided by twelve inches, equal 5,280 feet, or divided by three feet equals 1,760 yards, or one mile. Therefore, one inch on the map equals one mile on the ground. The top of the map is invariably the North, and in reading a map you should set it on the ground so that it corresponds with the points of the compass. At night the Pole star may be found by finding the two side stars of the "dipper" furthest from the handle, go on the alignment of these two stars and you will find the North star, or "Polaris." It is always approximately true North. You need not trouble yourself with the variations which exist between individual compasses, but you must have some knowledge of the variation of all compasses at given points in the country. There are two Norths, the North under the North Star, which is called "True North," and the magnetic North, to which the needle of the compass always points. The difference between "True North" and

"Magnetic North" is called the variation of the compass, and is expressed in degrees. This variation differs at different places. At Halfax, N.S., the variation is 21 degrees West, at Quebec the variation is 19 degrees West, at Montreal the variation is 14½ degrees West, at Winnipeg the variation is 11 degrees East, at Esquimault, B.C., the variation is 25 degrees East, and at Edmonton the variation is 26 degrees East. Put your compass on the ground, far away from any metal or iron, and let the needle settle itself. The needle points to the magnetic North. Correct the variation by laying a match or straw on the true North. Our system of surveys is true North and South, East and West. To find the North with a watch, point the hour hand at the sun, and half-way between the hour hand and twelve o'clock is South, if your watch is right, or nearly so.

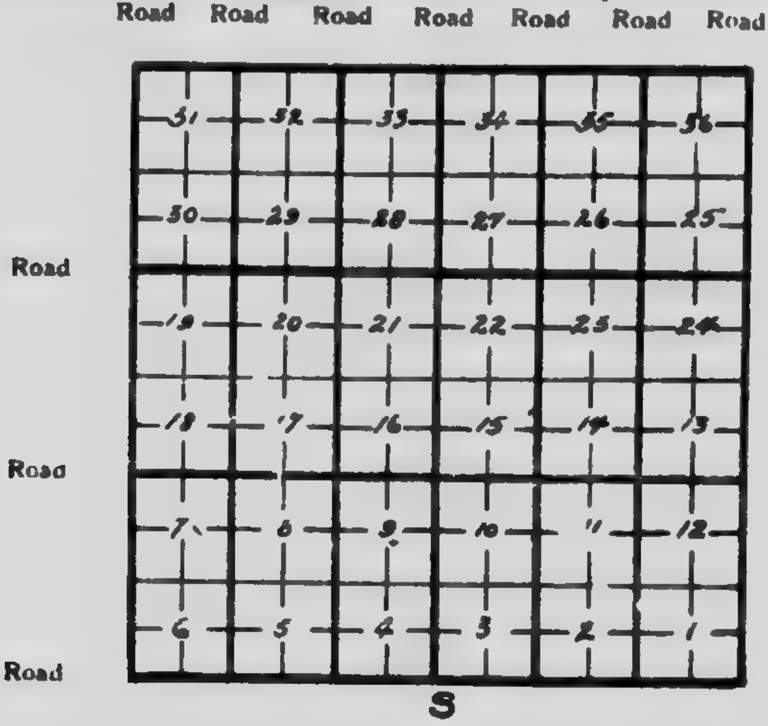
Contour: A line completely around a hill on the same level all the way, or the intersection of a hill by a horizontal plane. From the contours you will get an idea of the high and low ground, valleys and table lands.

The V.I., or "Vertical Interval," is the difference in height between one contour and the next one, and is always stated in feet. All military maps have a notation on them, giving the V.I. If the V.I. is ten feet, and you find on the map contour 500 feet high, then three contours lower will be a height of 470 feet. If we ever have military maps in Western Canada, such maps will conform to our system of surveys. The following facts should be known to all ranks:

The forty-ninth parallel of North latitude is the boundary between the United States on the South, and Manitoba, Saskatchewan, Alberta, and British Columbia on the North. For the purpose of survey it is our Southern base. Commencing at this base, and running towards true North, are lines known as Meridians. At the base they are about

thirty ranges or 180 miles apart, and these meridian lines converge as they approach, and finally meet at the pole. The fourth meridian is the easterly boundary of Alberta, and the Westerly boundary of Saskatchewan. The fifth meridian runs just about a mile east of Stony Plain, and about three miles east of Calgary, so that Calgary is almost due south of Stony Plain. The whole country is cut up into townships, six miles long and six miles wide, containing thirty-six square miles. Each square mile is called a section, and contains 640 acres. Each section is divided into four quarters, called the North-West, the North-East, the South-East, and the South-West quarters, and each quarter contains 160 acres. The sections in a township are numbered from one to thirty-six in the following manner:—

Township 24 Range 6 West of any Meridian.



31	32	33	34	35	36
30	29	28	27	26	25
19	20	21	22	23	24
18	17	16	15	14	13
7	8	9	10	11	12
6	5	4	3	2	1

Section Post on N.E. corner of every section; ¼ Posts in between.

These townships are laid out in tiers from the United States boundary to the North, so that for six miles North of this boundary it is all township "one." Commencing at the point where the fourth meridian (eastern boundary of Alberta) intersects the United States boundary, and at points every six miles west of that intersection, lines called Range lines are run towards the North. These lines are the East and West boundaries of the townships, so that Township one, Range one, West of the fourth Meridian, is the township in the South-East Corner of the Province. The ranges are numbered from East to West until the fifth meridian is reached, then a fresh start is made with range one, West of the fifth meridian. A fresh layer of townships is laid on township one, and so one as far North as the survey has been carried out. The township lines are indicated by figures on the meridian line running from South to North; and the range lines are indicated by figures on the United States boundary from East to West. With this information before you, you are asked to locate on the map the South-West quarter of Section one, Township 51, Range 19, West of the 4th Meridian. Commencing at the South-East corner of the map, you run your finger up the township numbers until you come to township number 51. With the finger of the other hand find Range 19 at the bottom of the map, and come up with that hand until Range 19 intersects Township 51. You are now in Township 51, Range 19, West of the fourth Meridian. This is an area of six miles by six miles (see plan, page 26). Section "one" is the section in the South-East corner of a township. Having found the section, your eye shows you the South-West quarter. This particular bit of land happens to contain the town of Tofield.

First locate the Meridian line, and get west of it, then locate the township line, and go west on it until you get to the proper range line. Then remember the system of numbering sections. This system prevails in Manitoba, Saskatchewan, Alberta, and to some extent in British Columbia. Vegreville is in Section 18, Township 52, Range 14, West of the fourth meridian. Morinville is in Section 33, Township 55, Range 25, West of the fourth meridian. Stoney Plain is in Section 1, Township 53, Range 1, West of the fifth meridian. Wabumun is in Section 11, Township 53, Range 4, West of the fifth meridian.

You may be puzzled at times to find on going North up a range line that it appears to stop dead on the south boundary of the township just north of the one on whose west boundary you have been travelling. As a matter of fact, this is so, and it is not so. To find the continuation of the range line, go west on the township line in front of you from 1-20 of a mile to a mile and a half as you go farther west and you will find your old range line going north again within that distance. The reason is this: That if the these range lines were allowed to go on they would gradually converge in the Pole. The earth is round. You can readily see that, without some arrangement, as we went North the townships, which are required to be six miles from East to West, would not fit in between the range lines, so the surveyors have arbitrarily fixed upon this arrangement:—The Range lines must be six miles away from the nearest range line on the east, so every four townships or twenty-four miles he gives his range line a fresh start by moving it over towards the West to overcome the convergence which takes place on going North. Down on the United States boundary there are thirty ranges, but the number is reduced as we go North. The broken townships are up against the West Meridian,

and on the East side of it. In this locality, viz., the east side of a westerly meridian, when you see a broken township, note carefully that you are looking at the *East side of a township, and that missing sections are on the West side of the township, and carry with them their numbers.* This system of survey precedes all settlement. There can scarcely be a locality inhabited in Western Canada where the surveyor has not been. Over every bit of Western Canada where people live the surveyor has been beforehand with his chain and instrument, measuring distances, delimiting boundaries, and laying down road allowances for future generations. How does he leave a record of his work on the ground?:—The range lines and township lines, and the boundaries of townships? Having found how a township is marked off into sections on the ground, all the rest follows.

An iron post about one and a quarter inches in diameter, and five feet long, is driven about four feet two inches into the ground at each corner of a township. These posts enclose an area of thirty-six quare miles, and lines are run from post to post, and are chopped out in the bush about four feet wide, and are easily discernible in the bush. Other lines are run from North to South, one mile apart, in the township, and two other lines are run from East to West every two miles, and these lines denote road allowances, so that there is a road allowance running North and South every mile as one goes from East to West, and a road allowance running East and West every two miles as one goes North and South. There is a road allowance entirely around the four boundaries of the township. On the North-East corner of every section four holes are dug in the ground within a couple of feet of the corner of the section. The earth taken from the holes is piled up to make

a mound exactly on the corner of the section, and into this mound, or on the North side of it in bush country, an iron post, ¾ of one inch square and 3 feet long, is driven, with one of its faces facing South-West towards the section to which it refers, and upon that face is stamped in Roman numerals the section, township, and range to which it refers, thus:—'"I.XXIV.VI." means that this post is on the North-East corner of Section one, in Township twenty-four, in Range 6. The meridian line is not given, since they are a considerable distance apart, and you should know between what meridians you are operating. Ranges 10 to 14 are about midway between two meridians. Halfway between the mile posts, or section posts, and on the cut-out lines, is planted another post, marked "¼," which refers to a quarter-section, and means a half mile. If you want to locate the North-West ¼ of 21 in the above township, go up the section line between Sections three and four until you come to the post marked "XXI-XXIV-VI," then go west on the section line until you come to the post marked "¼." Looking due South is your East boundary. Keep on going west till you reach the post marked "XX.-XXIV.-VI," then go south on the line between Sections 20 and 21 till you come to the post marked "¼." You have now walked on the north and west boundary of the quarter you are looking for, and these boundaries have been marked for you. If you want to put a fence around this quarter, you must yourself cut, or run, two straight lines between the four "Quarter" posts on the section boundaries. Where these lines intersect is the South-East corner of your quarter. It is also the North-West corner of the South-East quarter of the same section. You must, however, take 66 feet off the west boundary of you quarter for the road allowance.

If you are lost in the bush, walk straight in any direction and within two miles at the most you will strike a

narrow, straight, line cut through the timber. Follow it up till you come to the mile, or section post, locate yourself on the map and you know where you are.

On the open prairie you should have a compass. The system is the same, but there cannot be any lines cut. If you find a "¼" post, go North or South, East or West to find the section post. It is not always easy to find. Direction and distance are the factors. Set your compass. Correct the variation from magnetic to true North, and pace the distance. 880 yards equals half a mile; 1,760 yards equals a mile; a pace is thirty inches. Therefore, 1,056 paces equals half a mile, and 2,112 paces equals one mile. Now look for your post; it is not far away, and in the middle of 4 pits. No mounds on the prairies now. A more accurate method is this:—If you have a wagon, fasten a handkerchief on the wheel, preferably a hind wheel. Measure the circumference of the wheel, get you direction, and count the revolutions of the wheel. When the road allowances have been prepared for use, the posts will be found on the West or South side of the road allowance. In settled portions of the country, the section boundaries are usually the fence, and the inhabitants can give you the quarter, section, township, and range. Get hold of a map. Railway Companies and Land Companies give them away. Study the foregoing out, memorise how the sections are numbered, locate the meridians, remember that road allowances are a mile apart from East to West, and two miles apart from North to South. The only exception to this is, old trails, which were in use prior to survey. These are few and far between, and they have been surveyed and given the legal status of road allowances; likewise deviations around lakes and sloughs, or down to bridges and fords.

FIELD MESSAGES

"Show me a man's handwriting, and I will tell you his character."

—Shenstone.

Field messages should be written clearly, distinctly, concisely and precisely, with freedom from any possibility of misunderstanding. Assume that the greatest fool in the world may be called upon to read your message, and act upon it. Avoid all indefinite terms. The hour "twelve o'clock" should be followed by "noon" or "midnight," as the case may be. Night is thus described: "Night, 1-2 May," or "Night, 30th September-1st October." Names of places and persons should be written in block type, as **"CALGARY," "CRUIKSHANK."** If a map is referred to in the message, specify what map it is. Roads are indicated by the first and last place on the road, and several places in between. In using the terms, "Right" and "Left," you are looking towards the enemy. Do not write of the North, South, East, or West bank of a river, but say "right" or "left" bank, and assume that you are looking down stream. When your message is written, read it over to someone else, and see if the proper meaning is conveyed by it to the mind of that person.

Form of Message

"Message No. 5,
Reference Map
Mundy Blue Print.

Belmont School House,
N.W. ¼ 10-51-12, West 4th.
July 10-14.

To Lieutenant Jones,
3rd A. 19th A.D.,
Tofield.

"I arrived at this place at 12 noon today, with all my patrol. A friendly farmer, **JOHN SMITH**, of **BELLEVUE**,

states that on the night 8-9 July last he saw eight of the enemy's cavalry at **THOMSON'S** farm on S.W. 6-51-12-West 4th. He followed them from that place East on the road between townships 50 and 51 to the right bank of the **SASKATCHEWAN** River, where he stopped, and they went on. **SMITH** says that they were moving down the right bank of the **SASKATCHEWAN** River when he saw them last. At nine a.m. today, while at **HORSE HILL SCHOOL HOUSE**, I sent Corporal **PETERS** and Trooper **JOHNSTON** east to **BILLS POST OFFICE** on the road **HORSE HILL SCHOOL HOUSE-BELMONT SCHOOL HOUSE-CALDER-STRATHCONA-** and **BILLS P.O.** They have just returned to me here, and report no enemy along that road to **BILLS P.O.** Nor could any information be obtained by them of the enemy having been in that locality. I will bivouac tonight at **HALF-WAY HOUSE.**

P. ROBINSON,
Sergeant "A" 19th A.D.
Time, 12.30 p.m.

"By Orderly, at a trot."

ENTRAINING HORSES

"A horse! A horse! My kingdom for a horse!"
—Shakespeare.

The stock car holds sixteen heavy draught horses, and eighteen smaller horses—twenty such as we use. The car should be packed full with tied horses. Seven or eight horses in a car are better loose, if they do not kick. The horses should be tied alternately, head and tail. Each horse should be provided with a stout head collar and tie rope. First examine the car and see that the flooring is sound and free from holes, nails, projections, etc. The car should be clean and recently disinfected. If the floor is wet from previous shipments or from cleaning then it should be given a coat of sand to give a foothold. Examine the walls for projections, nails, bolts, etc., and drive them home. Remove or secure all loose boards, planks, etc. See that both "bull boards" and doors are in working order, and that the opposite "bull board" and door is secure. Properly adjust the "toe" board, and bring on the horses, loading to both ends of the car at the same time. Several men should assist in the car. Should any horse refuse to go on the "toe" board, let two men join hands, and applying the pressure well down on the thighs, heave him into the car. He can neither kick nor resist. The horses should be tied about the level of their eyes, with about fourteen inches slack. If a horse goes down he can raise himself by his neck with the slack. As the car is filled towards the door, the last few but two horses should be backed in, so that the last two can be led in straight and serve as wedges to tighten the mass. Stallions are very undesirable, but, if you must have them, stand at the extreme end of the car; next to him stand a mare not in season, and tie head to head. Mares in season are very troublesome. Stand a mare

in season between two mares not in season, or stand the mare in season at the end of the car with a mare not in season next. Geldings "cut proud" should stand as far as possible from mares in season. An Officer should supervise the loading of the Squadron, and each Troop Leader should see to the loading of his Troop horses, and keep a memorandum giving the number of horses he has in a car and the number of the car. He should report his horses loaded to the Officer in charge of the loading, with the above memorandum. The Officer or N.C.O. in charge of a stock train should be provided with sufficient ball cartridge to destroy horses in the event of a wreck. Horses should be well fed and watered before entrainment. At the end of the journey the horses should be carefully examined for injuries, and any injury, however trifling, should be promptly reported for the proper action. The work of loading and unloading should be gone about in an orderly, businesslike and determined manner, so that there is no delay or confusion on the one hand, or undue excitement of the horses on the other. This can only be brought about by planning the entire operation carefully beforehand, and the issuing of proper instructions.

CONVOY ESCORT

"Success in war, like charity in religion, covers a multitude of sins."

—Napier.

A wagon and two horses occupy ten yards in column on the road, and in mass ten feet each in width. These allowances include intervals and distances. Thus, one hundred 2-horse wagons occupy one thousand yards on the road, and you can park one hundred wagons in a space of ground eighty-three yards by eighty yards. Prove this by drawing your convoy up in four sections, each section in line, and in each section twenty-five wagons. This movement is exactly similar to forming squadron column to the halt from column. The first twenty-five wagons occupy a line 250 feet long, or eighty-three yards and one foot. Allow a distance of ten yards between each line, which, plus the allowance for wagon and team, ten yards, equals twenty yards for each line of wagons, or eighty yards for the four lines. This is mentioned at length because one thousand yards of wagons is an imposing sight on the road, but they can be tucked away in a very small space when parked. To the convoy commander this is an important fact, since he can park his convoy behind a small feature. But a convoy should always be kept on the move whenever possible, and the enemy should be engaged as far away from the march of the convoy as is safe and advisable. The convoy commander should, on setting out, satisfy himself that the convoy is under control, and that there exists a system of parking similar to the above; and if there is no such system he should devise a system at once, and place someone in charge to carry it out, if necessary. Under the system prevailing in Canada in war these wagons will be driven by civilian teamsters, each receiving for his services

remuneration equivalent to the pay of two Lieutenant-Colonels. Each teamster will have well considered and matured opinions on the question of the conduct of a convoy. The cowardice and insubordination of the hired transport driver is proverbial, and this must enter into your calculations, and you must provide a police system whereby you can energetically and forcefully ensure the carrying-out of your orders. First, then, organization for parking. Do this no matter how small the convoy.

It is not necessary to sit on a convoy to protect it. In the disposition of your force you will be governed by all those factors which always govern military movements; that is to say, ground, weather, character of the enemy, and so forth. You may need some protection, both front and rear, but you should have your main body well in hand, as strong as possible, and on the move, occupying and holding successive positions covering the march of the convoy, from which positions you could repel such attacks as might be made. Bad roads will always be a factor in this work, and the bad spots on the road will be danger spots. Occupy the best fire position in the neighbourhood, and hold it until the wagons are through. Do not allow straggling. Hindermost wagons must be kept closed up. Damaged wagons should pull out of the column at once, so that there will be no check. If double teaming on heavy grades is necessary, the wagons should move into park from column at the foot of the hill, to one side of the road, and be brought into park again at the top of the hill. In the meantime the escort should hold a covering position for both parks.

SOLDIERLY DEMEANOR

"Even in war moral power is to the physical as three parts out of four."

—Napoleon.

Real discipline becomes a habit of mind. Hence the expression, "The habit of discipline." The man of soldierly spirit sees nothing infra dig. or degrading in yielding implicit obedience to orders. On the contrary, his intelligence tells him that discipline is the outward manifestation of smartness, of "altogetherness," of comradeship, and finally of success, both in peace and war. The good soldier knows that where there is discipline there is fairness and justice in the performance of arduous military tasks; that discipline makes for uniformity in dress and courtesy in demeanour, and manliness, and cleanliness, and wholesomeness in the community life of the corps. Why is it that old soldiers will not join some regiments in our service? Ask them. The answer invariably is: "Because there is no discipline in that regiment." The word "discipline" to the old soldier means all that is set out above. Discipline begets cheerfulness, the greatest asset to a corps on service, and that, too, is a "habit of mind." If men will cultivate the habit of cheerfulness it will dominate their minds even when things are at their worst. In the performance of duty the soldier may be wet, cold, hungry and sleepy. At such times the cheerful man is worth his weight in gold. His morale goes up as the "quitter's" goes down. We cannot have too many of him. Yet, after all, it is only a habit of mind, and easily acquired by any man who has a sound mind in a sound body. Let us acquire it. Let our hearty "Very good, Sir" be an inspiration to those over us, as well as to those under us.